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## (54) GALLIUM NITRIDE GROUP COMPOUND SEMICONDUCTOR LASER DIODE

(57)Abstract:

PURPOSE: To obtain a blue laser.

**CONSTITUTION:** A gallium nitride group compound semiconductor laser diode having, at least, one p-n junction where a p-layer 5 consisting of a gallium nitride group compound semiconductor showing the n-type conductivity  $(Al_xGa_{1-x})_yIn_{1-y}N:0 \cdot x' \cdot 1, 0 \cdot y' \cdot 1$  and a p-type layer 5 consisting of a gallium nitride group compound semiconductor showing the p-type conductivity  $(Al_xGa_{1-x})_yIn_{1-y}N:0 \cdot x' \cdot 1, 0 \cdot y' \cdot 1$  ( $x=x'$  or  $x \neq x'$ ,  $y=y'$  or  $y \neq y'$ ) are joined. Since it is succeeded to generate a gallium nitride group compound semiconductor

